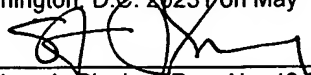





PATENT

1743
M/S

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Stephen A. Blush, Reg. No. 43,924
Jeffrey D. Myers, Reg. No. 35,964


May 1, 2002
(Date)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: JOSEPH WANG, et al. : Art Unit: 1743
Serial No.: 10/046,032 : Examiner: Unknown
Filed: October 23, 2001 :
For: MICROSENSORS FOR GLUCOSE :
AND INSULIN MONITORING :

INFORMATION DISCLOSURE STATEMENT

Box MISSING PARTS

Commissioner for Patents
Washington, D.C. 20231

S I R :

Pursuant to 37 C.F.R. §§ 1.97 and 1.98 and to the duty of disclosure set forth in 37 C.F.R. § 1.56, the Examiner in charge of the above-identified application is requested to consider and make of record the references listed on the PTO 1449 submitted herewith. A copy of each of the listed references is also enclosed.

Although the information submitted herewith may be "material" to the Examiner's consideration of the subject application, this submission is not intended to constitute an admission that such information is "prior art" as to the claimed invention.

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made.

This Information Disclosure Statement is being filed prior to the mailing date of a first Office action. Therefore, no fee or certification is required. 37 C.F.R. § 1.97(b).

Certain of the cited art was made known to the applicant in an office actions issued in the parent application, Serial No. 09/216,353, to which this application claims priority.

Respectfully submitted,

Dated: May 1, 2002

A handwritten signature in black ink, consisting of a stylized 'S' followed by a large 'A' and a horizontal line extending to the right.

Stephen A. Slusher, Reg. No. 43,924
Direct line: (505) 998-6130

Enclosures: PTO Forms 1449;
Copy of References

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(505) 998-1500
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				Application Number	10/046,032	
				Filing Date	October 23, 2001	
				First Named Inventor	WANG, et al.	
				Group Art Unit	1743	
				Examiner Name		
Sheet	1	of	8	Attorney Docket Number		37000cip9720

U.S. PATENT DOCUMENTS

Examiner Initials	Cite No. ¹	U.S. Patent Document Kind Code ² Number (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		3,019,383	R.H. Varian	01/30/1962	
		3,837,339	S. Aisenberg, et al.	09/24/1974	
		4,220,503	J.M. Johnson	09/02/1980	
		4,317,879	M.G. Busby, et al.	03/02/1982	
		4,350,955	J.A. Jackson, et al.	09/11/1982	
		4,356,074	J.M. Johnson	10/26/1982	
		4,484,987	D.A. Gough	11/27/1984	

FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No. ¹	Foreign Patent Document Office ³ Number ⁴ Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T ⁶
		PCT WO01/20019 A2	Implanted Biosystems Inc.	22 Mar 2001		
		JAP 04326054 A	Yazaki Corp	26 Apr 1991		
		EP 0 401 179 A1	Ampliscientifica srl	05 Dec 1990		
		PCT WO96/14026 A1	Elan Medical Tech Ltd	17 May 1996		
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		4,587,100	Y. Amano, et al.	05/06/1986	
		4,604,182	J.L. Seago	08/05/1986	
		4,671,288	D.A. Gough	06/09/1987	
		4,704,029	A. Van Heuvelen	4,704,029	
		4,721,677	L.C. Clark, Jr.	4,721,677	
		4,936,956	M.S. Wrighton	06/26/1990	
		4,970,145	H.P. Bennetto, et al.	11/13/1990	

FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No. ¹	Foreign Patent Document Office ³ Number ⁴ Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T 6
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			Application Number	10/046,032	
			Filing Date	October 23, 2001	
			First Named Inventor	WANG, et al.	
			Group Art Unit	1743	
Examiner Name					
Sheet	3	of	8	Attorney Docket Number	37000cip9720

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		5,082,550		J. Rishpon, et al.	01/21/1992	
		5,227,042		T.A. Zawodzinski, et al.	07/13/1993	
		5,272,087		N. El Murr, et al.	12/21/1993	
		5,286,364		A.M. Yacynych, et al.	02/15/1994	
		5,378,628		M. Gratzel, et al.	01/03/1995	
		5,405,766		K.M.R. Kallury, et al.	04/11/1995	
		5,429,726		J.M. Johnson, et al.	07/04/1995	

FOREIGN PATENT DOCUMENTS

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			Application Number	10/046,032	
			Filing Date	October 23, 2001	
			First Named Inventor	WANG, et al.	
			Group Art Unit	1743	
Examiner Name					
Sheet	4	of	Attorney Docket Number 37000cip9720		

U.S. PATENT DOCUMENTS

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		5,531,878	P.M. Vadgama, et al.	07/02/1996	
		5,540,828	A. Yacynych	07/30/1996	
		5,616,222	T.C. Maley, et al.	04/01/1997	
		5,643,721	T.G. Spring, et al.	07/01/1997	
		5,708,247	J.F. McAleer, et al.	01/13/1998	
		5,771,891	S.N. Gozani	06/30/1998	
		5,820,622	J. Gross, et al.	10/13/1998	

FOREIGN PATENT DOCUMENTS

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				Application Number	10/046,032
				Filing Date	October 23, 2001
				First Named Inventor	WANG, et al.
				Group Art Unit	1743
Examiner Name					
Sheet	5	of	8	Attorney Docket Number	37000cip9720

U.S. PATENT DOCUMENTS

Examiner Initials	Cite No. ¹	U.S. Patent Document ²		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code (if known)			
		5,922,183		R.D. Rauh	07/13/1999	
		6,134,461		J. Say, et al.	10/17/2000	

FOREIGN PATENT DOCUMENTS

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				Application Number	10/046,032
				Filing Date	October 23, 2001
				First Named Inventor	WANG, et al.
				Group Art Unit	1743
Examiner Name					
Sheet 6 of 8	Attorney Docket Number 37000cip9720				

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

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		CASS, A.E.G., et al., "Ferrocene-Mediated Enzyme Electrode for Amperometric Determine of Glucose," <i>Anal. Chem.</i> , Vol. 56, No. 4 pp 667-671 (Apr 1984)	
		CLARK, Jr. L.C., "Bioelectrodes for Tissue Metabolism," <i>Ann NU Acad Sci.</i> , Vol. 148, pp 133-135 (1962)	
		CLARK, et al., "Survival of Mammals Breathing Organic Liquids Equilibrated with Oxygen at Atmospheric Pressure," <i>Science</i> , vOL. 1552, PP 1755 (1966) ABSTRACT ONLY	
		CSOREGI, E., et al., "Design, Characterization, and One-Point in Vivo Calibration of a Subcutaneously Implanted Glucose Electrode," <i>Anal. Chem.</i> , Vol. 66, pp 3131-3138 (1994)	
		FISCHER, U., et al., "Oxygen Tension at the Subcutaneous Implantation Site of Glucose Sensors," <i>Biomed. Biochim. Acta</i> , Vol. 11/12, pp 965-971 (1989)	
		FREW, J.E., et al., "Electrochemical Biosensors," <i>Analytical Chemistry</i> , Vol. 59, No. 15, pp 933A-944A (August 1, 1987)	
		GORSKI, W., et al., "Ruthenium Catalyst for Amperometric Determination of Insulin at Physiological pH," <i>J Electroanalytical Chem</i> , Vol. 425, pp 191-199 (1997)	
		GORTON, L., "Carbon Paste Electrodes Modified with Enzymes, Tissues, and Cells," <i>Electroanalysis</i> , Vol. 7, No. 1, pp 23-29 and 33-35	
		GOUGH, D.A., et al., "Two-Dimensional Enzyme Electrode Sensor for Glucose," <i>Anal. Chem.</i> , Vol. 57, No. 12 pp 2353-2357 (October 1985)	
		HO, C.S., et al., "Enhancing Penicillin Fermentations by Increased Oxygen Solubility Through the Addition of <i>n</i> -Hexadecane," <i>Biotech and Bioeng</i> , Vol. 36, pp 1110-1118 (1990)	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/046,032
		Filing Date	October 23, 2001
		First Named Inventor	WANG, et al.
		Group Art Unit	1743
		Examiner Name	
Sheet 7 of	Attorney Docket Number	37000cip9720	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	.	KALCHER, K., et al., "Sensors Based on Carbon Paste in Electrochemical Analysis: A Review with Particular Emphasis on the Period 1990-1993," <i>Electroanalysis</i> , Vol. 7, No. 1, pp 5-6 (1995)	
	.	KUHN, L.S., "Biosensors: Blockbuster or Bomb?", <i>Electrochem Society Interfae</i> (1998)	
	.	LITTLEJOHN, D., et al., "Reviews on Analytical Chemistry - Euroanalysis VIII", <i>Royal Society of Chemistry</i> , Cambridge, Great Britain, pp 84-85 (1994)	
	.	LOWE, K.C., "Perfluorochemical Respiratory Gas Carriers: Applications in Medicine and Biotechnology," <i>Science Progress</i> , Vol. 80, No. 2, pp 169-193 (1997)	
	.	MILLARD, R.W., "Oxygen Solubility, Rheology and Hemodynamics of Perfluorocarbon Emulsion Blood Substitutes," <i>Art. Cells, Blood Subs., and Immob. Biotech.</i> , Vol. 22, No. 2, pp 235-244 (1994)	
	.	ROGERS, M.J., et al., "Interaction of D-Glucal with <i>Aspergillus niger</i> Glucose Oxidase," <i>Biochemistry</i> , Vol. 10, No. 25, pp 4624-4631 (1971)	
	.	SAWYER, D.T., "Redox Thermodynamics for Oxygen Species," <i>Oxygen Chemistry</i> (1991), Oxford University Press NY USA	
	.	SCHULTZ, J.S., "Biosensors" <i>Scientific American</i> , pp 64-69 (August 1991)	
	.	SWOBODA, B.E.P., et al., "Purification and Properties of the Glucose Oxidase from <i>Aspergillus niger</i> ", <i>J. Biological Chem.</i> , Vol. 240, No. 5, pp 2209-2215 (May 1965)	
	.	TALLMAN, D.E., et al., "Composite Electrodes for Electroanalysis: Principles and Applications," <i>Electroanalysis</i> , Vol. 2, pp 499-510 (1990)	
	.	UMLANDJ.B., et al., "General Chemistry," <i>West Publ. Co.</i> , St. Paul, MN, pp 962-965 (1993)	

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				Application Number	10/046,032
				Filing Date	October 23, 2001
				First Named Inventor	WANG, et al.
				Group Art Unit	1743
				Examiner Name	
Sheet	8	of	8	Attorney Docket Number	
				37000cip9720	

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

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		WANG, J., et al., "Mixed Iant Tissue-Carbon Paste Bioelectrode," <i>Analytical Chem</i> , Vol. 60, pp 1545-15148 (1988)	
		WANG, J., et al., "Needle-Type Dual Microsensor for the Simultaneous Monitoring of Glucose and Insulin," <i>Anal. Chem.</i> , Vol. 73, pp 844-847 (2001)	
		WANG, J., et al., "Trace Measurements of Insuline by Potentiometric Stripping Analysis at Carbon Paste Electrodes," ABSTRACT (1997)	
		WANG, J., et al., "Hydrocarbon Pasting Liquids for Improved Tyrosinase-Based Carbon-Paste Phenol Biosensors," <i>Electroanalysis</i> , Vol. 9, No. 14, pp 1102-1106	
		WANG, J., "Analytical Electrochemistry" TEXTBOOK, J. Wiley & Sons, New York US (2000), pp 123-126	
		WANG, J., et al., "Highly Selective Biosensing of Glucose Utilizing a Glucose Oxidase + Rodium + Nafion [®] ," <i>J. Electroanalytical Chemistri</i> , Vol. 395, pp 287-291 (1995)	
		WILHELM, E., et al., "Thermodynamic Functions of the Solubilities of Gases in Liquids at 15° C" <i>Chemical Reviews</i> , Vol. 73, No. 1, p 1-9 (Feb 1973)	
		ZHANG, Y., et al., "In Vitro and In Vivo Evaluation of Oxygen Effects on a Glucose Oxidase Based Implantable Glucose Sensor," <i>Analytical Chimica Acta</i> , Vol. 281, pp 513-520 (1993)	

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